MULTIMEDIA UNIVERSITY

STUDENT IDENTIFICATION NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2017/2018 SESSION

BAC 2624 – MANAGEMENT ACCOUNTING II

(All Sections / Groups)

2 MARCH 2018
9.00 a.m. – 12.00 p.m.
(3 Hours)

INSTRUCTION TO STUDENT

1. This Question paper consists of 5 pages (excluding cover page) with 4 Questions only.

2. Answer **ALL** Questions. All question carry equal marks. The distribution of the marks for each question is given.

3. Please write all your answers in the Answer Booklet provided.

QUESTION 1

Bina-Sat Telecommunications Bhd has two (2) divisions, the Component Division which manufactures and transfers computer circuits boards to the Product Division, which uses the circuits boards to produce telecommunication equipment for the Asian market. The Component Division is operating at full capacity. One of the circuit board that it transfers to the Product Division is circuit board A770. Circuit board A770 has a variable cost of RM 32.00 per 100 units and it can be sold externally to other companies in the computer industry for RM 40.00 per 100 units.

To produce its final product, the Product Division incurs additional variable manufacturing and selling costs of RM 65.00 per 100 units and sells the final product to the external market for RM 120.00 per 100 units.

The general manager of Product Division, Mr Paul Getty has been contacted by an Indonesian based company that is willing to offer a product similar to circuit board A770 at a very competitive price of RM 28.00 per 100 units. Mr Paul Getty is very keen to take up this offer from the Indonesian company.

Ignore taxes.

Required:

a. Assuming that the Component Division has no spare capacity, what is the minimum transfer price? Explain your answer. (5 marks)

b. Recalculate the minimum transfer price assuming that the Component Division has spare capacity and has no other opportunity for that spare capacity. Explain your answer. (3 marks)

c. Assuming that the Component Division has spare capacity and has no other opportunity for that spare capacity, what is the transfer price if company policy for transfer pricing is variable cost plus 20% mark-up? (3 marks)

d. Based on your answer in (c) above, is it in the best interest of the company as whole if the General Manager of the Product Division purchases its circuit board from the Indonesian company rather than the Component Division. Show your calculation and explain. (6 marks)

e. As the Manager of the Component Division what arguments might you use to encourage the Manager of the Product Division to continue to source the product from your Division rather than from Indonesia. (8 marks)

[TOTAL 25 MARKS]

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QUESTION 2

Bee Best Manufacturing Sdn Bhd manufactures water heater for the domestic market. It is considering introducing a new model of water heater call H-777. To be competitive in the market, Bee Best needs to price the new model at RM 800 per unit. Management requires a target profit margin on sales for all new products of at least 30% of sales. The Marketing Department expects the model to be to be obsolete within three years of entering the market. Initial estimates of the H-777's cost of manufacturing per unit are:

Table 1	**RM**
Direct Material	250
Direct Labor	125
Manufacturing Overhead*	125
Total Cost	500

*Note : Manufacturing overhead is applied at 100% of Direct Labor cost.

The management accountant is concern about the non-manufacturing costs that are likely to be associated with the new product. He asks the departments that are upstream and downstream of manufacturing to estimate their cost in their departments associated with the development, production and sale of the H-777. He received the following information:

Estimated cost associated with the proposed H-777 (in RM'000)					
Department	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Research & Development	1,500				
Product & Process Design	3,000	700			
Marketing	1,000	800	500	400	
Customer Service		250	800	750	200

The forecasted sales of H-777 is as follows	
Year 2	17,000 units
Year 3	9,000 units
Year 4	4,000 units

Required:

a. Calculate the target cost for the H-777 that will meet the target selling price of RM 800 **and** the target profit margin of 30% of sales. Compare this with the estimated manufacturing cost. On this basis, would you recommend the development and introduction of the Sun-struck model? (5 marks)

b. Prepare a life cycle budget for H-777 that covers each year from Year 1 to Year 5 showing the total life cycle operating income (loss). (8 marks)

Continued...

c. What is the estimated average unit cost of H-777 over its entire life cycle? On this basis, would you recommend the development and introduction of the H-777? (3 marks)

d. Refer to your answer in (c). Based on your answer, would you undertake a review of the unit manufacturing cost of RM 500 per unit (refer to Table 1)? Specifically, which cost item would you review? Explain. (3 marks)

e. Explain how Bee-Best Manufacturing Sdn Bhd could use life cycle management to reduce the manufacturing cost of H-777. Which part of the value chain may warrant additional expenditure? Explain. (6 marks)

[TOTAL 25 MARKS]

QUESTION 3

The Precise Printing Bhd is contemplating the acquisition of a state of the art printing press. The following information is relevant:

The cost of the printing press is RM180,000
The anticipated revenue from the printing press is RM120,000 per year.
The useful life of the printing press is 12 years.
Annual operating costs are expected to be:

Salaries	RM40,000
Utilities	10,000
Power usage	4,600
Supplies	6,400
Repairs/maintenance	12,000

The firm uses straight-line depreciation.
The salvage value for the car wash is zero.
The company's cutoff points are as follows:

Payback	4 years
Accounting rate of return	16%
Internal rate of return	16%

Ignore income taxes.

Required:

a. Compute the annual cash inflow. (2 marks)
b. Compute the net present value. (2 marks)
c. Compute internal rate of return. (2 marks)
d. Compute accounting rate of return. (2 marks)
e. Compute the payback period. (2 marks)
f. Should the printing press be purchased? (2 marks)

Precise Printing is considering a proposal to sell an existing manually operated machine and purchase a new computer-operated machine. Information on the existing and the computer-operated machine follow:

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	Existing Manual machine	Computer-operated machine
Cost	RM100,000	RM300,000
Accumulated depreciation	60,000	0
Salvage value now	20,000	
Salvage value in 4 years	0	60,000
Annual depreciation	10,000	75,000
Annual cash operating costs	200,000	50,000
Remaining useful life	4 years	4 years

Required:

g. What is the payback period for the computer-operated machine? (3 marks)

h. If the company uses 10 percent as its discount rate, what is the net present value of the proposed new machine purchase? (8 marks)

i. Should the computer-operated machine be purchased? Why? (2 marks)

[TOTAL 25 MARKS]

QUESTION 4

Western Delights manufactures a special blend of beef marinade. The company buys one of the spices used in the marinade in 10-pound bags that cost RM5 each. The company uses 50,000 of the bags per year, and usage occurs evenly throughout the year.

The average cost to carry a 10-pound bag in inventory per year is RM1. The cost to place an order is RM12.

Required:

a. Determine the economic order quantity for the spice in terms of 10-pound bags. (2 marks)

b. If the company work 250 days per year, on average how many bags of spice are used per working day? (2 marks)

c. If the lead time for an order is normally five working days, determine the reorder point. (4 marks)

d. If the company normally carries 50 bags as safety stock, determine the reorder point for the spice. (4 marks)

e. Why does a "push" based inventory control system generate larger inventory levels than a pull" system? (4 marks)

f. Why might it be necessary to make adjustments to the accounting system in a firm that adopts JIT? (4 marks)

g. Manufacturers have found that the Just-in-Time (JIT) philosophy improves quality, lowers costs and improves profits. Those that have successfully implemented JIT have found that six components are necessary. Identify the five components necessary to the successful implementation of JIT and briefly comment on each. (5 marks)

[TOTAL 25 MARKS]

Appendix

Present Value of $1

Periods	4%	6%	8%	10%	12%	14%	16%	18%	20%
1	.962	.943	.926	.909	.893	.877	.862	.847	.833
2	.925	.890	.857	.826	.797	.769	.743	.718	.694
3	.889	.840	.794	.751	.712	.675	.641	.609	.579
4	.855	.792	.735	.683	.636	.592	.552	.516	.482
5	.822	.747	.681	.621	.567	.519	.476	.437	.402
6	.790	.705	.630	.564	.507	.456	.410	.370	.335
7	.760	.665	.583	.513	.452	.400	.354	.314	.279
8	.731	.627	.540	.467	.404	.351	.305	.266	.233
9	.703	.592	.500	.424	.361	.308	.263	.225	.194
10	.676	.558	.463	.386	.322	.270	.227	.191	.162

Present Value of a Series of $1 Cash Flows

Periods	4%	6%	8%	10%	12%	14%	16%	18%	20%
1	0.962	0.943	0.926	0.909	0.893	0.877	0.862	0.847	0.833
2	1.886	1.833	1.783	1.736	1.690	1.647	1.605	1.566	1.528
3	2.775	2.673	2.577	2.487	2.402	2.322	2.246	2.174	2.106
4	3.630	3.465	3.312	3.170	3.037	2.914	2.798	2.690	2.589
5	4.452	4.212	3.993	3.791	3.605	3.433	3.274	3.127	2.991
6	5.242	4.917	4.623	4.355	4.111	3.889	3.685	3.498	3.326
7	6.002	5.582	5.206	4.868	4.564	4.288	4.039	3.812	3.605
8	6.733	6.210	5.747	5.335	4.968	4.639	4.344	4.078	3.837
9	7.435	6.802	6.247	5.759	5.328	4.946	4.607	4.303	4.031
10	8.111	7.360	6.710	6.145	5.650	5.216	4.833	4.494	4.192

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